

Bu 7006
ALEXANDER LUTEMORE
PAPERS

TRAVEL NOTES
GUATEMALA, 1936

Raymond
B04

T. E. Snyder

400 Union Bldg

837 Gravier St.

New Orleans.

Walnut
592 1/3

Mrs. C. H. Popunoe

401 Sligo Ave., Silver Spring, Md.

Miss A. H. Smith

2013 New Hampshire Ave

W. M. Siddorham

271 Garrote St., Long Beach

Laura Law

2620 Foothill Blvd. Altadena

R. L. Dising

J. S. Goldsmith 1433 Fairmont

F. C. Lincoln 6633 Barnaby St.

W. Robert H. Day 1930 Chestnut Phila

N. B. Iyer, 527 St. Ann

sent

Baggage to New York
~~these~~

3 chests

2 collecting cases

1 bag

2 suitcases

1 package

1 overcoat

Buy in New Orleans

~~Heavy socks~~

~~Sleeveless hunting coat~~

lamp & 3 chimneys.

~~watch~~

Hugo - Spanish Verbs

~~green hose~~

New Monteleone Hotel

New Orleans

~~Leather slipper~~

~~Shoe laces~~

~~Pulley~~

~~Monteleone, ad hoc to the~~

A.G. Spalding. 134 Carondelet

Dundlap's Sporting G. 135 "

Carr & Hickock 120 Camp

Hensell Carondelet

[Faint, illegible handwriting on lined paper]

Mr. Austin

United Fruit Co. Agent, Puerto Barrios

Mr. La Guard

United Fruit Co Agent, Guatemala City

Hotel Galván, Huehuetenango
Prop. López

Palace
~~Grand~~ Hotel, Guatemala City

Mr. Wilson Popper

of La Unión, Honduras
Co United Fruit Co.

or. #1 Federal St, Boston, Mass.

Tajumulco is good point
according to R. P. Schmitt.

Alfredo Clark, Guatemala City
autos

Road from Guatemala City to
Chichicastenango not touching
Atitlan crosses a pass at
12,000 feet with forest of
large trees

Beaggage

- 1 tray chest
- 2 field chests (trunks)
- 1 bed roll.
- 2 film telescopes
- 2 suit cases
- 1 top coat
- 1 rain coat
- 1 Package

Vaughton, Miles

Covering the Far East

Mr. Mayrick
asst mgr. Castilla Div.
Mr. Cloward
asst mgr. Cortez Div.

~~W. M. McDonald~~
~~Puerto Barrios~~
~~Send him let. Jeger.~~

Foto - Bienes
Guatemala City

Matt Gump
In Seta Caschita Valenzuela
at Palace

Call on Sr. Latorre
10⁰⁰ Tues. for letter
car

Establo Alvarez
Paraje Aycinena
6 av to Park - (portal)

Cosmos Libreria
6th av (9-10-)

Tempshot

Hotel America

Reservations for New York
Dec. 4, P. Catano

10/25

Barranca - Guatemala

Above Monteban 250 ft.

Pine apparent along track.
growth less dense.

Qualam beginning
and tropical zone
Zacapa about Juncosville
country above good.

Beyond steep climb to
plateau.

Progreso 1695 feet, small
town, scrub covered hills
rising around with a
break from 1800 feet down to Zacapa
3 or 4 miles East, on this break
there are valleys offering good
collecting.

Arid tropical from a short distance
below Qualam to above Progreso
Jalapa 2040 ft. subtropical
border, increase in green vegetation

Money
handcuff
trunks
American consul

Pato Aguirre Rosalymus

Don. Delphino Sanchez haton

San Luis Buena Vista
Mr. Wheeler (Electric Plant)

hansen of from the Capuchinas

Fabricas de Helados y Tziles

Casa Garcia

Mr. & Mrs. Callender
Come Tuesday p. m., unless
I write them!

Oct. 29

Duñas 5800 ft.

Falco sparverius - chis chis
Cassidix ♀ sonate, clarinos

Finca San Sebastián

Salvador Falla

Black Phoebe

6200 ft.

Candela

7200, Chumallénanga

Cyanolyca

~~Challa~~

Chara

Don Augustin Cicerón

San Antonio de Aguas
calientes : 4800 ft.

Cassidix eye yellow

11/36

Ciudad Vieja

2 - Cassin's 5000 ft.

6380 ft

mark birds 6500

11/2

Tangarinos - Dueñas

Barranca Honda

Alotenango East base

Volcan de Fuego

3800 feet

11/3

Las higas 3500

Alotenango

Mostera deliciosa

^{11/4}
Candras 6100 ft

Chimaltenango for caminos
a la Atlamida.

Mr. Johnson, Escuela de Agricultura

^{11/5}
3400 ft.

Maria Garcia Sales
Pamajachel
in chat of Gordon Smith

J. E. McQuinn
Finca "Viña"
Reserva Progreso
San Marcos.

11/7

Rio Guaracah 5500
Dpto Chimaltenango,
La Alameda
Turkey rustic

upland 5700
Dendroica occ.
Cyanocitta
Myiodynastes
Blachospiza coronata

8/8

Las Lajas

3200 ft

8/11

Ranajachul

Myiodynastes

Psalis

Helodytes

ping ping

Kistrik

~~Zorro~~

Zorro

Turdus plebejus
Sierra Santa Elena,
~~#~~ Tecpán
May, 1936

Autocorynus prasinus
April, 1936, ♂

Axel Pira

Calabozo	9350 ft
Chichoy	8980 ft
Paniquilin	9200 ft
Panemaquin	9100 ft
{ hoc arco	7700
{ Cinchus	Depto Solola
Los Encuentros	8370
Cumba Maria Tecun	9800
Desconcho	10,600
Depto Totonicapan,	Oxyechus

Maria Tecun 10,000

Killer Collarejo

Alotunango 4750

Flycatcher loachlike
brown eye brownish white
Meg. Kee - ee - ee ee

Saltator chaves choirs
cher.

Munakron mellow whistle
but bright orange, claws black.
eye dark red, bill black

172 species.

Rayer Bananero

Amur leg. 11 ⁰⁰

R.D. Wells
Vice consul

12/2

Zenaidura 6 cents each
60 cents & g. 100

12/3

Zenopsis
Marsh Hawk
Caracara
White-winged Dove

At Iguaçu the
hills to the north of
the tract are covered
with pine.

Ru 7006

ALEXANDER WETMORE
PAPERS

BUSINESS CARDS &
CONTACTS

GUATEMALA, 1936

Axel Pirn

SIERRA SANTA ELENA.

TECPAM.

Mr. William E. Jessup

Guatemala City

Dec. 2^d 1936

C. A.

Jos. E. Callender
Manager

CENTRAL DEPARTMENT
THE OCEAN ACCIDENT & GUARANTEE CORPORATION, LTD
539 INSURANCE EXCHANGE
CHICAGO

Adrian Recinos

*Envoy Extraordinary and Minister Plenipotentiary
of Guatemala*

Introducing
Mr. Alexander Wetmore

Gerald Augustin Drew

Chargé d'Affaires of the United States of America

to Rev. Father Rossbach

Mrs. Frederick Cornelius Sullivan Wilhelm

844 West Delavan Avenue

Buffalo

Giant 6324

JULIO MIJARES

A. F. BRIESE

SECRETARY

THEARLE-DUFFIELD FIREWORKS, INC.

624 SO. MICHIGAN AVENUE

CHICAGO

Exclusive Contractors to the Chicago World's Fair ♦ ♦ 1933 - 1934

Mrs. A. Brice

1180 S. Oak Park Ave

Oak Park. Ills

Det. no. Nat. Geogr.

autograph

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ALEXANDER LOETMORE
PAPERS

7 BLACK AND WHITE
UNIDENTIFIED PHOTOGRAPHS
GUATEMALA 1936



Box p36
Wetmore
3

3.

4

— $4\frac{1}{8}$ —

$2\frac{1}{4}$



Ex p 36
Chelone
2

2.

— $4\frac{1}{8}$ —

$\frac{8}{121}$

$\frac{1}{2}$
cu



at p36
Volume
6

$\frac{31}{2}$

$4\frac{1}{8}$

$\frac{1}{2}$
2 1/2



64 p36
Vetmore
4

— 4 $\frac{1}{8}$ —

8
121

121



3 1/2

8/23/36
Belmore

7

8 1/2

4 1/8



Ex 836
Belmore
8

8

— 4 $\frac{1}{8}$ —

8
11

36
19



Ex p 36
Volume 1.

— $4\frac{1}{8}$ —

\sqrt{m} 8
4
pi

Ru 7006
ALEXANDER LEITCHMORE
PAPERS

MEMORANDA OF EXPENSES
GUATEMALA, 1936

1936

Sept 18. Passport Photos ① 1.50

19. Paper for pocket notebook 50

2 packages Mothersills

Sea sick remedy @.63 1.26

2 sawhich straps for
machetes

.35

Oct. 16. (Ticket ~~Washington~~ ^{New Orleans}, La.
to Puerto Barrios, Guatemala
and return to New York City,
Gov't reg. S.d. - 2, 213
value \$153.00)

Extra fare required to
secure cabin accommodations
New Orleans to Puerto Barrios
because of need for prompt
sailing ② 12.60

Charge for \$500 in
American Express Co.

Travelers Checks. 6.00

17 (Ticket Washington, D.C. to
New Orleans, La., Gov't reg.
S.d. - 2211, \$33.50)

1936

Oct. 17. (Leave Washington, D.C. to
New Orleans, govt reg.
S.d. 221, \$8.00)

Oct. 18 Lw. Washington via

Southern porter (4 pieces baggage) .50

19. Breakfast en route 1.15

Telegram New Orleans

for hotel reservation (4) .63

Excess baggage acct filed

Equipment, 100 lbs (3) 5.59

Lunch .87

Dinner 1.90

20. Pullman porter .50

arr. New Orleans 7:45 a.m.

Station porter (4 pieces) .50

Taxi to hotel .50

tips to bell boys .50

Breakfast .83

Baggage transfer depot to

Wharf, 4 pieces @ .75 3.00

1 sleeveless hunting coat

for field use (5) 3.90

1 lamp & equipment for

field use (6) 5.31

	Dinner with 2 guests (official)	3.50
21	Breakfast	.87
	Hotel (7)	3.00
	telephone	20
	pressing	25
	telegram (official)	76
	Hotel porter	.50
	taxi hotel to wharf	50
	Porterage on baggage at wharf	1.00
	fr. New Orleans via United Fruit line SS. Metapan	
	Steamer Chair	.75
25	Arrive Puerto Barrios, Guatemala 6:00 a.m.	
	Stationer Steward	3.00
	Dining ..	4.00
	Porterage on baggage on wharf and train 9 p.m.	3.00
	Ticket Puerto Barrios to Guatemala City, Guatemala	9.95
	fr. Puerto Barrios 7:40 a.m.	
	Lunch en route	1.00
	porter	15

Arrive Guatemala City 6¹⁵ p.m.

Fees to baggage porters	1.00
Oct. 26. Taxi	60
Fees at hotel	25
Lunch with guest official	2.45
Maps and guides for official use	3.15
27. Taxi	65
12 ¹ / ₄ gal gas	3.05
Hotel for two days with charges for baggage, laundry, pressing and other items	(8) 16.48
Tips	70
Left Guatemala City in hired auto (used for travel for now on) at 4 ⁰⁰ p.m.	
Arrived Antigua 5:10 p.m.	
Dinner	85
28. Household supplies	1.97
Postage official	23

Oct. 30	5 gal gas.	1.65
	food	.98
" 31,	food	1.01
	Screw driver	.30
	tip to boy for showing trail	.10
Nov. 1,	4 gal gas 1 qt oil	1.63
	Edwards Mandy services	
	4 days @ .75 (9)	3.00
2	Food & household supplies	1.37
4	6 gal gasoline & tire repair	2.42
	food & household supplies	1.15
	Developing & printing	
	3 rolls of film (10)	1.66
5	Services of boy	.10
6	food	1.00
	Breakfast in Guatemala City	.10
	10 1/2 gal gas	3.47
	1 qt. oil (11)	.20
	Repairs to spring on car	2.75
	postage	.19
8	services of assistant	
	7 days @ .75 (12)	5.25
	postage	.23
9	6 gal gas 1 qt oil	2.27

lv. Antigua 7:45 a.m.
Arr. Panajachel 11:00 a.m.

1 day service for assistant
~~from Antigua to Panajachel~~ 75

Bus fare for assistant for
return to Antigua 2.25

Nov. 13 postage 45

15 services of assistant 5 days
@ \$1.00 (13) 5.00

16 Hotel bill as follows

8 hours lunch hire @ .50 4.00

4 gals gas @ .40 1.60

Laundry 1.50

Hotel Nov. 9 to 16 inclusive

7 days @ 3.00 (14) 21.00

Writers fee 1.00

Other tips 75

left Panajachel 8:15 a.m.

gas and oil in Tecpan 2.65

arr. Sierra Santa Elena 12:00 noon

20. Fee to boy for services .25

22 left Sierra Santa Elena 9:30 2.32

arr. Antigua 12:00

lunch in Antigua with
2 guests (official) 3.15
gas, oil and water in
battery. 2.05

Lv. Antigua 3⁰⁰ p.m.
Arr. Sierra Santa Elena 5³⁰ p.m.

26 10 gal gasoline 3.40
28 Tips to servants 1.00

Left Sierra Santa Elena 8³⁰ a.m.

Arr. Antigua 11⁰⁰ a.m.

5 gal. gas. 1 qt oil 1.95
postage .29
food 1.00

30 Food ~~2.82~~

Services of boy 2 days @ .75 1.50

Dec. 1 ~~Services~~ Tips in Antigua 3.75

(for entire period) el have
been here.

Auto hire, Dec. 27 to

Dec. 1, 35 days @ 3⁰⁰ (B) 105.00

Developing 8 rolls film

with 1 print each (16+17) 4.64

(Lv. Antigua 2:30 p.m.

Arr. Guatemala City 3:30 p.m.

	Hotel porters	85
	taxi fare	25
2	1 roll film	75
	taxi fares	1.65
4	"	1.50
	bus fare	.05
	Postage	20
	developing & printing 1 roll film	50
3	Hotel bill	8.25
	Waiters tips	25
	Taxi to station	50
	Fees to porter for handling	
	baggage at hotel & station	1.00
	Ticket Guatemala city	
	to Puerto Barrios	9.95
	Charge for 3 full chests	5.82
	lv. Guatemala City 7 ⁴⁰ a.m.	
	lunch en route	1.05
	Arr. Puerto Barrios 6 ¹⁰ p.m.	
	Train porter	25
	Portage on 5 pieces baggage	
	train to hotel	1.25
4	Boat hire	2.00

Hotel / day (20) 5.00
Wenters fee 15
Charges for handling 3 trunks
forwarded from Guatemala
City in baggage car at
50 cents each 1.50.

Portage on baggage hotel
to customs house & customs
house to ship, 8 pieces 2.40

5. Left Puerto Barrios in
SS. Platano

Deck chair 1.00

6 Radio to office 2.10

11 Arrive New York City

Deck Steward 1.00

Dining Room Steward 4.00

Stateroom Steward 4.00

Portage on baggage at
Wharf 2.25

for self & baggage (9 pieces)	
wharf to station on train	4.25
Excess baggage	92
Trans. reg. for self & suit	
New York to Washington	
Portage on five pieces	
baggage in station	1.25
for New York via	
P.R.R.	
lunch	1.65
Pullman porter	10
Arr. Washington, D.C.	
Station porter fees	.50
Taxi station to house	1.00

December 30, 1936.

Mr. H. W. Dorsey,
Administrative Assistant to the Secretary,
Smithsonian Institution.

Dear Mr. Dorsey:

I beg to submit herewith my expense account for my recent trip to Guatemala amounting to \$381.42.

For this work the Smithsonian Institution made advance to me of \$800.00. In addition to the account I enclose herewith endorsed American Express Travellers checks to the amount of \$320.00 and my personal check for \$98.58 covering the difference, as follows:

Account	\$ 381.42
American Express Travellers Checks	320.00
Personal check	<u>98.58</u>
Total	\$ 800.00

In this connection I beg to note that there will be one further small charge against this allotment to cover repairs on one of my shotguns that was broken during the expedition and will have to go to the factory for repairs.

Very truly yours,

A. WETMORE
Assistant Secretary.

September 18, 1936	Passport Photos (1)	\$ 1.50
" 19, "	Paper for pocket notebook .....	.50
	2 packages mothersills seasick remedy at .63 cents	1.26
	2 rawhide straps for machetes .....	.35
October 16, 1936	(Ticket New Orleans, La. to Puerto Barrios, Guatemala and return to New York City, Gov't. req. S.I.-2,213 value \$153.00)	
	Extra fare required to secure cabin accommodations New Orleans to Puerto Barrios because of need for prompt sailing (2)	12.60
	Charge for \$800 in American Express Company travellers checks	6.00
" 17 "	(Ticket Washington, D.C. to New Orleans La., Gov't. req. S.I. - 2211, \$33.50) (Lower Washington, D.C. to New Orleans, Gov't. req. S.I.-2211 \$8.00)	
" 18 "	Lv. Washington via Southern R.R. Excess baggage account field equipment 100 lbs. (3)	5.59
	Station porter (4 pieces baggage) .....	.50
" 19 "	Breakfast en route	1.15
	Telegram New Orleans for hotel reservation (4) .....	.63
	Lunch .....	.87
	Dinner	1.90
" 20 "	Pullman porter .....	.50
	Arr. New Orleans 7:45 a.m. Station porter (4 pieces) .....	.50
	Taxi to hotel .....	.50
	Fees to bell hops .....	.50
	Breakfast .....	.83
	Baggage transfer depot to wharf, 4 pieces at .75 cents	3.00
	1 Sleeveless hunting coat for field use (5)	3.90
	1 Lamp and equipment for field use (6) ...	5.31
	Dinner with two guests (official)	3.50
		<u>\$ 51.39</u>

Brought Forward ... \$ 51.39

October 21, 1936	Breakfast .....	.87
	Hotel (7)	3.00
	Telephone .....	.20
	Pressing .....	.25
	Telegram (official) .....	.76
	Hotel porter .....	.50
	Taxi hotel to wharf .....	.50
	Porterage on baggage at wharf	1.00
	Lv. New Orleans via United Fruit Line S/S Metapan	
	Steamer Chair .....	.75
" 25, "	Arrive Puerto Barrios, Guatemala 6:00 A.M.	
	Stateroom steward	3.00
	Dining "	4.00
	Porterage on baggage on wharf and train 9 pieces	3.00
	Ticket Puerto Barrios to Guatemala City, Guatemala	9.95
	Lv. Puerto Barrios 7:40 a.m.	
	Lunch enroute	1.00
	Porter .....	.15
	Arrive Guatemala City 6:15 p.m.	
	Fees to baggage porters	1.00
" 26, "	Taxi .....	.60
	Fees at hotel .....	.25
	Lunch with guest (official)	2.45
	Maps and guides for official use	3.15
" 27, "	Taxi .....	.65
	12 1/4 gal. gas	3.05
	Hotel for two days with charges for baggage, laundry, pressing and other items (8)	16.48
	Tips .....	.70
	Left Guatemala City in hired auto (used for travel from now on) at 4:00 p.m.	
	Arrived Antigua 5:10 p.m.	
	Dinner .....	.85
" 28, "	Household supplies	1.97
	Postage (official) .....	.23
" 30, "	5 gals. gas	1.65
	Food .....	.98
" 31, "	Food	1.01
	Screw driver .....	.30
	Tip to boy for showing trail .....	.10
		<u>\$115.74</u>

Brought Forward \$ 115.74

November 1, 1936		4 gal. gas, 1 qt. oil	1.63
		Eduardo Mendez services 4 days at .75 (9)	3.00
"	2,	" Food and household supplies	1.37
"	4,	" 6 gal. gasoline & tire repair	2.42
		Food and household supplies	1.15
		Developing & printing 3 rolls of film (10)	1.66
"	5,	" Services of boy .....	.10
"	6,	" Food	1.00
		Bus fare (in Guatemala City) .....	.10
		10-1/2 gal. gas	3.47
		1 pt. oil (11) .....	.20
		Repairs to spring on car	2.75
		Postage .....	.19
"	8,	" Services of assistant 7 days at .75 (12)	5.25
		Postage .....	.23
"	9,	" 6 gal. gas, 1 qt. oil	2.27
		Lv. Antigua 7:45 a.m.	
		Arr. Panajachel 11:00 a.m.	
		1 day's service for assistant from Antigua to Panajachel .....	.75
		Bus fare for assistant for return to Antigua ..	2.25
"	13,	" Postage .....	.45
"	15,	" Services of assistant 5 days at \$1.00 (13) ..	5.00
"	16,	" Hotel bill as follows:	
		8 hours launch hire at .50	4.00
		4 gals. gas at .40	1.60
		Laundry	1.50
		Hotel Nov. 9 to 16 inclusive 7 days at \$3.00 (14)	21.00
		Waiters fee	1.00
		Other tips .....	.75
		Left Panajachel 8:15 a.m.	
		Gas and oil in Tecpam	2.65
"	20,	" Fee to boy for services .....	.25
"	22,	" Left Sierra Santa Elena 9:30 Arr. Antigua 12:00	

\$ 183.73

Brought Forward \$ 183.73

November 22, 1936	Lunch in Antigua with 2 guests (official)	3.15
	Gas, oil and water in battery	2.05
	Lv. Antigua 3:00 p.m.	
	Arr. Sierra Santa Elena 5:30 p.m.	
" 26, "	10 gal. gasoline	3.40
" 28, "	Tips to servants	1.00
	Left Sierra Santa Elena 8:30 a.m.	
	Arr. Antigua 11:00 a.m.	
	5 gal. gas, 1 qt. oil	1.95
	Postage .....	.29
	Food	1.00
" 30, "	Food .....	.82
	Services of boy 2 days at .75	1.50
December 1, "	Tips in Antigua (for entire period I have been here)	3.75
	Lv. Antigua 2:30 p.m.	
	Auto hire, October 27 to December 1, 35 days at \$3.00 (15)	105.00
	Developing 8 rolls film with 1 print each (16 & 17)	4.64
	Hotel porters .....	.85
	Taxi fare .....	.25
" 2, "	1 Roll film .....	.75
	Taxi fares	1.65
	" "	1.50
	Bus fare .....	.05
	Postage .....	.20
	Developing and printing 1 roll film (18) .....	.50
" 3, "	Hotel Bill (19)	8.25
	Waiters tips .....	.25
	Taxi to station .....	.50
	Fees to porter for handling baggage at hotel and station	1.00
	Ticket Guatemala City to Puerto Barrios	9.95
	Charge for 3 field chests	5.82
	Lv. Guatemala City 7:40 a.m.	
	Lunch enroute	1.05
	Arr. Puerto Barrios 6:10 p.m.	
	Train porter 1.....	.25
	Porterage on 5 pieces baggage train to hotel...	<u>1.25</u>
		\$ 346.35

Brought Forward \$ 346.35

December 4, 1936	Boat hire	2.00
	Hotel 1 day (20)	5.00
	Waiters fee .....	.15
	Charges for handling 3 trunks forwarded from Guatemala City in baggage car at 50 cents each	1.50
	Porterage on baggage hotel to customs house and customs house to ship, 8 pieces	2.40
" 5, "	Left Puerto Barrios on S/S Platano. Deck chair	1.00
" 6, "	Radio to office	2.10
" 11, "	Arrive New York City	
	Deck Steward	1.00
	Dining Room Steward	4.00
	Stateroom Steward	4.00
	Porterage on baggage at wharf	2.25
	Transportation self and baggage 9 pieces wharf to station	4.25
	Excess baggage .....	.92
	Transp. req. ticket & seat New York to Washington	
	Porterage on five pieces, baggage in station	1.25
	Lv. New York via P.R.R.	
	Lunch	1.65
	Pullman porter .....	.10
	Arr. Washington, D.C.	
	Station porter fees .....	.50
	Taxi station to house	<u>1.00</u>
		\$ 381.42

The above account is correct to the best of
my knowledge and belief.

Assistant Secretary.

RU 7006 Alexander Wetmore Papers

REFERENCE
MATERIAL

GUATEMALA, 1936

Odontophoridae

- a. A prominent, elongated crest, underparts with small white spots, size large.

Odontophorus guttatus

- aa. Crest absent or short and bushy.

- b. Size large, wing more than 140 mm., hind neck chestnut brown

Dendrotyx leucophrys

- bb. Size medium, wing 140 or less; hind neck not chestnut brown.

- c. Underparts boldly spotted with irregular buff and white spots

Colinus leucoprogus

- cc. Underparts not as above.

- d. Rectrices rounded, bill heavy

Dactylortyx thoracicus

- dd. Rectrices decidedly pointed, bill weaker.

Cyrtonyx ocellatus

Columbidae.

- a. Wing longer and more pointed, longest primaries exceeding distal secondaries by more than one-third length of wing (chastataxi) (Columba)
b. Whole neck conspicuously spotted and squamated with black

Columba speciosa

- bb. Neck not as above.

- c. Tail longer, more than three-fourths wing, outermost primary shorter than fifth (from outside) (coloration plain)

Columba nigrirostris

- cc. Tail shorter, less than three-fourths wing, outermost primary longer than fifth
d. Hindneck metallic green or bronze, tail bicolored.

Columba fasciata

- dd. Hindneck not metallic, this restricted to occiput and nape, tail unicolored or bicolored.

- e. Occiput and nape not metallic, tail deep slate

Columba flavirostris.

- ee. Occiput and nape metallic, tail brownish gray

Columba rufina.

- aa. Wing shorter and more rounded, longest primaries exceeding distal secondaries by not more (usually less) than one-third wing.

b. Smaller, wing less than 102 mm., bare orbital region separated from rictus by feathering (*Columbigallina*)

c. Sides of tarsus without feathers under wing coverts chestnut

d. Neck and chest squamated

Columbigallina passerina

dd. Neck and chest immaculate

Columbigallina minuta

cc. Sides of tarsus with a row of minute feathers axillars and under wing coverts black

Columbigallina rufipennis

bb. Larger, wing more than 110 mm.

c. Tail truncate, wings spotted, sexes unlike in color (*Claravis*)

d. Tail black

Claravis perrotta

dd. Tail with lateral rectrices extensively white at tips

Claravis mondetoura

cc. Tail decidedly rounded, wings not spotted

d. Outermost primary shorter than seventh, abruptly attenuated terminally

e. Hindneck glossed with ^(leptotis) metallic

purple bronze and green

Leptotila verreauxi

Columbidae 2

ee. Hind neck not distinctly if at all
metallic.

f. Occiput and nape nearly concolor
with back.

Leptotila Cassini

ff. Occiput and nape slate-gray
in contrast with brown of back

Leptotila plumbeiceps

dd. Outermost primary longer than
seventh, not attenuated terminally
(Oreopelia)

e. More or less rufous in inner webs
of remiges.

Oreopelia montana

ee. No rufous on inner webs of
remiges

Oreopelia albifacies

Psittacidae

a. Tail elongate, graduated.

b. Seventh primary attenuated.

c. No blue on remiges, under surface of wing and tail olive-yellowish (*Aratinga*)

d. Smaller, wing less than 160 mm.

Aratinga subitorquis

dd. Larger, wing more than 170 mm.

Aratinga strepera

cc. Distal secondaries and part of primaries blue, under surface of wings and tail blackish or slaty (*Empidonax*)

d. Crown more or less bluish-green, chest light, forehead more or less broadly orange or orange-buff.

Aratinga canicularis

dd. Crown bright green, chest deep olive, little or no orange on forehead

Aratinga aster

bb. Seventh primary not attenuated.

c. Barred above with black

Bolborhynchus lineola

cc. No black bars above.

Protonotaria jugularis

aa. Tail shorter, not graduated.

b. a red auricular spot

Pyrrhuloxia haematotis

bb. no red auricular spot.

c. Under tail-coverts red

Pionus senilis

cc. Under tail coverts not red (Amazona)

d. Outer webs of distal secondaries
wholly green, or blue and green.

Amazona albifrons

dd. Outer webs of distal secondaries
with basal half red or orange.

e. Inner webs of rectrices with
more or less red on basal portion.

f. No red on forehead

Amazona auripallata

ff. Forehead red

Amazona autumnalis

ee. Inner webs of rectrices
without red at base.

Amazona farinosa

Alcedinidae

a. Sides and flanks white more or less spotted with green.

b. Larger, wing 125-146 mm.

Chloroceryle amazona

bb. Smaller, wing 73-88 mm.

Chloroceryle americana

aa. Sides and flanks orange - chestnut

Chloroceryle aenea.

MOMOTIDAE

- a. Bill compressed (deeper than wide at nostrils) the tomtia more coarsely serrate.

Momotus

- b. Pileum blue (at least exteriorly).

M. lessonii

- bb. Pileum chestnut.

M. castaneiceps

- aa. Bill depressed (wider than deep at nostrils the tomtia more finely serrate.

- b. Culmen strongly carinate; bill more strongly curved, as long as head; middle pair of rectrices with a racquet tip.

- c. Bill broader, width at nostrils equal to near one half distance from nostril to tip of maxilla; terminal racquet shorter than culmen; no superciliary tufts nor narrow, brightly colored feathers on throat.

Electron

- cc. Bill narrower, width at nostrils much less than one half distance from nostril to tip of maxilla; terminal racquet much longer than culmen; conspicuous superciliary tufts and narrow, brightly colored feathers on throat.

Eumomota

- bb. Culmen not carinate; bill less decurved, shorter than head; middle pair of rectrices normal.

- c. Tail much longer than wing.

Aspatha

- cc. Tail shorter than wing.

Hylomanes

NICROPODIDAE

a. Size large.

b. Throat dark

Streptoprocne

bb. Throat and upper chest pure white.

Panyptila

aa. Size small.

b. A chestnut brown band around neck.

Cypseloides

bb. No colored band around neck.

Chaetura

c. Under parts and rump darker

d. Larger, wing 122-133

C. pelagica

dd. Smaller, wing 105-116.5.

C. richmondi

cc. Under parts and rump pale
brownish gray (wing 107-117)

C. vauxii

TROGONIDAE

a. Tail feathers not tipped with white.

Trogon massena

aa. Tail feathers tipped with white.

b. Under parts partly yellow.

c. Larger, wing 130-146 mm., outer rectrices without distinct white bars.

Trogon melanocephalus

cc. Smaller, wing 110-134 mm., outer rectrices barred distinctly with white.

Trogon violaceus braccatus

bb. Under parts partly red.

c. Back green

d. Rectrices not barred with white.

Trogon mexicanus ♂

dd. Rectrices distinctly barred with white.

e. Tail longer 160-185 mm. with white bars wider than black

Trogon elegans ♂

ee. Tail shorter, 127-160 mm., with white bars much narrower than black interspace.

Trogon puella ♂

cc. Back brown.

d. A conspicuous auricular spot of white

Trogon elegans ♀

dd. No white auricular spot.

e. Breast brown, lateral rectrices broadly barred with white on outer web, larger wing 136-157 mm.

Trogon mexicanus ♀

ee. Breast red, broadly banded with white smaller wing 115-138 mm. outer web of outer rectrix white mottled with black.

Trogon puella ♀

RAMPHASTIDAE

- a. Nostrils opening posteriorly behind elevated margin of maxilla.

Ramphastos

- aa. Nostrils opening vertically or laterally.

- b. Head and neck black with a brown collar on neck.

Pteroglossus

- bb. General color greenish

Aulacorhynchus

BUCCONIDAE

- a. Larger, wing 110-120, forehead, collar
on hindneck and throat white.

Notharchus hyperrhynchus dysoni

- aa. Smaller, wing 81-93, forehead only slightly
mixed with white, throat buff.

Malacoptila panamensis inornata

PICIDAE

a. Larger, wing 160 mm. or more

b. Head uniform red or black, culmen 38-50 mm.

Phloeoceastes g. guatemalensis

bb. Head particolored, culmen 32-39 mm.

Ceophloeus l. similis

aa. Smaller, wing less than 150 mm.

b. Outer hind-toe longer than outer front toe.

Veniliornis oleaginus sanguinolentus

bb. Outer hind-toe not longer than outer front toe.

c. Nostrils wholly exposed, no red in pileum, back chestnut; head crested.

Celeus castaneus

cc. Nostrils more or less covered by bristly feathers, pileum at least partly red, crested, back greenish

Piculus rubiginosus

Dendrocolaptidae

a. Nostril roundish without distinct apiculus (Dendrocolaptes)

b Bill depressed, at least as broad as deep at nostril, maxillary lunula ^{notched}.

c. Pileum barred or transversely lunulated with black

Dendrocolaptes sancti-thomae

cc. Pileum streaked with buffy or whitish

Dendrocolaptes griseus puncticollis

bb. Bill compressed, much deeper than broad at nostril, no notch on lunula.

c. Larger, wing 131-142 mm.

Xiphocolaptes procerorhynchus longirostris

ce. Smaller, wing less than 120 mm.

d. Bill nearly straight (only tip of maxilla decidedly decurved) (Xiphorhynchus).

e. Underparts striped or streaked with buffy.

f. Back conspicuously streaked, color

lighter, grayer. Xiphorhynchus flavicastris

ff. Back absolutely streaked. (the streaks mostly confined to upper back) color darker, brown.

Xiphorhynchus guttatus confinis

ee. Underparts spotted with buffy.

Xiphorhynchus erythrorhynchus

dd. Bill decidedly decurved throughout, more so than

e. Markings on pileum, spotlike

hepocolaptes affinis

ee. Markings on pileum streaklike

hepocolaptes souleyeti insignis

aa. Nostril narrow, distinctly apiculate

b. Bill much shorter than head, a buff band across inner web of remiges.

c. Bill stout, wedge-shaped, with tip of maxilla broad and flattened, nasal operculum very broad.

Glyptorhynchus spinosus fectoralis

cc. Bill slender, almost subulate, with tip of maxilla narrow, pointed and slightly curved, nasal operculum narrow.

Sittasomus griseicapillus sylvicola

bb. Bill nearly as long as head, no buff band on maxilla

c. Secondaries mostly tawny or tawny-ochraceous, contrasting strongly with their dusky tips and the amber brown of wing coverts

Dendrocopos anabatensis

cc. Secondaries brown or rufescent, concolor with wing coverts, or at least not contrasting strongly with them.

Dendrocopos homochroa.

PIPRIDAE

- a. Wing less than two and one-half times tarsus, males with outermost primaries very narrow and bowed feathers of throat elongated.

Manacus candei

- aa. Wing at least three and one-half times tarsus, primaries normal, or if narrow not bowed; feathers of throat not elongated.

- b. Tail less than two-thirds of wing

- c. Frontal feathers erect, stiffened, in adult male forming a short black tuft; lower end of tibia naked except in front; adult males with pale blue back and red crest.

Chiroxiphia linearis

- cc. Frontal feathers only semi-erect, not tufted but uniform with rest of pileum; lower end of tibia feathers; adult male without distinct crest.

Pipra mentalis

- bb. Tail more than two-thirds of wing

Schiffornis turdinus verae-pacis

Cotingidae

a. Bill longer and more compressed, tarsus much more than one-fourth wing, tarsus mainly non-scutellate.

Attila spadiceus

(Pileum and hindneck greenish olive, back reddish brown, rump and upper tail-coverts yellow, breast and abdomen white streaked more or less, wing 81-93 mm).

aa. Bill shorter and broader, tarsus much less than one-fourth wing, planta tarai holasfidean.

b. Back black

c. Hindneck black

Pachyrhamphus polychropterus ♂

cc. Hindneck gray

Pachyrhamphus major ♂

bb. Back brown or olive.

c. Back and tail rufous brown.

Pachyrhamphus cinnamomeus

cc. Tail partly black.

d. Back and pileum olive

Pachyrhamphus polychropterus ♀

dd. Pileum black or black and rusty back brown.

Pachyrhamphus major ♀

TURDIDAE

Genus Myadestes

- a. Upper parts plain grayish or slate color, under parts similar but paler.

Myadestes unicolor

- aa. Back and wings brown, distinctly different from lower surface.

Myadestes obscurus

Genus Turdus

- a. Under tail coverts partly white.

- b. Under tail-coverts brownish gray with a median streak of white; a rufescent collar.

rufitorques

- bb. Exposed portion of under tail-coverts chiefly white; no rufescent collar.

assimilis subsp.

- aa. Under tail coverts without white.

- b. General color buffy brown or buffy olive (paler below); under wing coverts strongly buff.

- c. Inner webs of remiges distinctly edged with buff; under tail coverts clear buff

grayi subsp.

- cc. Inner webs of remiges edged with pale broccoli brown; under tail coverts pale wood brown; lores dusky marginal above by a streak of brownish.

infuscatus ♀

- bb. General color grayish brown, sooty brown or black.

- c. Bill and feet dusky brown; upper parts olive or olive brown; under parts light grayish brown.

plebejus

- cc. Bill and feet yellowish; plumage black

infuscatus ♂

TURDIDAE (Cont'd.)

Genus Catharus.

a. Pileum black or blackish.

b. Back slate-grayish; chest buffy white or
buff-yellowish spotted with grayish or dusky.
dryas

bb. Back olive or olive-brown; chest plain
gray or olive

mexicanus

aa. Pileum brownish or grayish

b. Pileum more rufescent than back

frantzii alticolor

bb. Pileum concolor with back

melpomene bangsi

COMPSOTHTLYPIDAE

a. Under surface with more or less red

b. Upper surface partly red

Ergaticus versicolor

bb. Upper surface without red.

c. Crown marked with brown

Myioborus miniatus subsp.

cc. Crown bluish like back

Granatellus sallaei

aa. Under surface with more or less yellow.

b. Pileum plain gray, a chestnut spot on upper breast.

Vermivora superciliosa

bb. Pileum not plain gray, no chestnut on breast.

c. Crown gray, lores and frontal region black

Chamaethlypis

cc. Crown not gray.

d. Tail tipped extensively with white

(Yellow crown patch, black forehead)

Euthlypis lachrymosa

dd. No white in tail

e. Back and sides of head grayish

(Concealed brown crown patch)

Basileuterus culicivorus

ee. Back greenish, sides of head chestnut brown.

f. Tail shorter than wing.

g. Superciliary stripe yellow

Basileuterus belli

gg. Superciliary stripe white

Basileuterus delatitrii

ff. Tail equal to longer than wing

g. Tail about equal to wing, under parts entirely yellow.

Idiotes salvini

gg. Tail longer than wing, throat yellow, abdomen whitish

Idiotes rufifrons

Fringillidae

a. Mandibular ramus less than one-fifth gonys
(head black) Hesperiphona abeillei

aa. Mandibular ramus at least one-third gonys.

b. Secondaries with broad basal band of yellow (Spinus)

c. Underparts streaked

Spinus atriiceps

cc. Underparts not streaked

Spinus notatus

bb. Secondaries not banded with yellow.

c. wing tip equal to or longer than tarsus, wing more than 76.2 mm, bill much swollen (underparts yellow)

Phenicticus chrysops

cc. Wing tip not as long as tarsus, or else wing less than 76.2 mm.

d. Commissure equal to or longer than middle toe without claw, tip of maxilla uncinat.

Caryothraustes poliogaster

(horns to upper throat black, head and underparts yellow, upper parts olive green, wing 88-100 mm.)

dd. Commissure shorter than middle toe without claw, or else tip of maxilla not uncinat.

e. Unicolored or yellow.

f. Bill very broad and thick; ^{bird} black or brown

Crystoborus funereus

(♂ black, white spot at base of lower primaries, ♀ brown, wing 53-57 mm.)

ff. Bill narrower; Bird yellow

(Sicalis chrysops)

ee. Plumage variegated, not bright colored,
often streaked.

f. Back streaked (*Aimophila*,

g. Anterior underparts white, pileum
conspicuously five-striped.

Aimophila inificandula)

gg. Anterior underparts grayish or
buff, pileum not five striped

h. Edge of wing white

Aimophila rufescens.

hh. Edge of wing yellow

Aimophila botteri.

ff. Back not streaked.

g. Tail shorter than wing.

h. a white loreal spot, or else outermost
primary edged with white, edge of
wing white or else a yellow patch ^{spot} on
either side of neck, and a white auricular.

i. Chin and throat white, head
partly rufous, edge of wing white.

Melospiza biarcuatum

ii. Chin and throat black; no rufous
on head; sides of neck and edge of
wing yellow; a white spot in center
of auricular region

Melospiza occipitalis

~~hh~~ hh. No white loreal spot or edging to
outermost primary, back olive green
edge of wing yellow.

Fringillidae 2.

- i. Sides of head grayish, with narrow post-ocular streak, superciliary gray, chest not banded.

Arremonops straticipes chloronotus

- ii Sides of head black, a broad black band across chest

Arremon aurantirostris

- gg. Tail equal to or longer than wing.

- h. Head black with median crown stripe, rest of upper parts dusky olive, throat yellow or orange, rest of underparts dull white.

Atlapetes guthriei

- hh. Anterior part of crown black, marked with white, rest chestnut; upper parts olive green, edge of wing yellow; underparts white with black band across chest, sides grayish.

Buarremon burmeisteri

Troglodytidae

a. Tail at least half as long as wing, much longer than tarsus.

b. Back conspicuously streaked, banded or otherwise variegated (at least beneath surface) (Heliodontia)

c. Underparts plain white or buffy white.

Heliodontia capistratus.

cc. Throat and breast spotted with black.

Heliodontia zonatus.

bb. Back unicolorous.

c. Nostril distinctly operculate.

d. Tail graduated for one-third length

Phengodes maculipictus.

(Pelvic and hindlimb robust, rest of upper parts light olive brown, white superciliary banded above by black, below white spotted with black, wing 52-62 mm.)

dd. Tail graduated for much less than one-third length

e. Hallux without claw decidedly longer than outer toe without claw.

Thryothorus albinucha.

ee. Hallux without claw not longer than outer toe without claw.

f. No superciliary.

Troglodytes macleay.

ff. a buffy superciliary stripe.

Troglodytes rufociliatus.

cc. Nostril non-operculate.

d. Tail only half as long as wing, not much longer than tarsus.

e. Breast white

Hemicorhina leucosticta

ee. Breast gray

Hemicorhina leucophrys.

dd. Tail much more than half as long as wing
at least half again as long as tarsus. ↓

e. wing less than 55 mm.

Nannochilus leucogaster

ee. wing more than 55 mm.

f. Sides and flanks broadly barred with
blackish Thryophilus pleurostictus.

ff. Sides and flanks not barred

g. Under tail coverts barred

Thryophilus rufalbus

gg. Under tail coverts not barred

Thryophilus modestus

aa. Tail less than half as long as wing, shorter
than tarsus

Microcirculus philomela.

COEREBIDAE

- a. Outermost primary shorter than sixth; male glossy green with pileum and sides of head black, females green.

Chlorophanes spiza.

- aa. Outermost primary longer than sixth, male rich blue, female plain green above.

- b. General color blue and black.

- c. Chin and throat like rest of underparts

Cyanerpes cyaneus ♂

- cc. Chin and throat black

Cyanerpes lucidus ♂

- bb. General color green

- c. Under wing-coverts and part of inner webs of secondaries yellow, chest not distinctly streaked, throat not buffy.

Cyanerpes cyaneus ♀

- cc. Under wing-coverts white, no yellow on secondaries, chest distinctly streaked, throat buffy.

Cyanerpes lucidus ♀

THRAUPIDAE

a. Tail less than two-thirds as long as wing,
bill short, compressed.

b. Upper parts bright green.

Chlorophonia occipitalis ♂ ♀

bb. Upper parts steel blue or olive green or
gray.

Tanagra

c. Crown, occiput and hindneck light blue

T. elegantissima ♂, ♀

cc. Crown, occiput and hindneck not light blue.

d. Back dark steel blue.

e. Throat dark steel blue

f. Under tail coverts yellow.

T. affinis ♂

ff. Under tail-coverts white, sometimes
tinged with yellow.

T. olivacea humilis ♂

ee. Throat yellow like rest of underparts

T. lauta ♂

dd. Back olive-green or olive-gray

e. Abdomen or under tail-coverts or both
tawny or ochraceous

T. gouldii ♂, ♀

ee. Neither abdomen nor under tail-coverts
tawny or ochraceous like back.

f. Back bright olive-green.

g. Occiput olive green like back.

h. Median underparts grayish.

T. lauta ♀

hh. Median underparts yellow at
least on chest like sides.

T. olivacea humilis ♀

gg. Occiput grayish more or less dis-
tinctly different from olive-green of
back.

affinis imm.

ff. Back olive-grayish.

affinis ♀

THRAUPIDAE (Cont'd.)

aa. Tail more than two-thirds as long as wing,
bill not like that of Euphonias.

b. Outermost primary much longer than third,
usual equal to or longer than fourth; if wing
less than 71.1, the outermost primary equal
to fifth.

c. Exposed culmen decidedly shorter than middle
toes without claw.

d. Tarsus decidedly longer than middle toe
with claw, more than one-third as long as
tail.

e. Back streaked with black or dusky.

Tangara cabanisii

ee. Back without streaks

f. Back bright green

Tangara lavinia cara

ff. Back not bright green.

Tangara larvata

cc. Exposed culmen not shorter than middle toe
with claw.

d. Back not streaked.

e. General color red, or at least head red.

f. Under parts entirely red; back reddish

g. Wings and tail dull red.

h. Maxillary tomium without tooth; color
vermilion.

Piranga rubra ♂

hh. Maxillary tomium with tooth; color
grayish red above.

Piranga flava ♂

gg. Wings and tail black

Piranga erythromelas ♂

ff. Underparts yellow; back not reddish

Piranga ludoviciana ♂

THRAUPIDAE (Cont'd.)

ee. General color olive-greenish above; yellow below.

f. Back olive-green or grayish

g. Wings without yellow bands.

h. Under wing coverts yellow

i. Bill light brownish, maxillary tomium without tooth.

Piranga rubra ♀

ii. Bill dusky; maxillary tomium with tooth.

Piranga flava ♀

hh. Under wing coverts white, wings and tail black or dusky gray.

Piranga erythomelas ♀ & winter

gg. Wings with two yellow bands.

Piranga ludoviciana ♀ & winter

dd. Back streaked with black

Piranga bidentata

bb. Outermost primary little if any longer than third.

c. Loral and frontal feathers stiff, erect, brushlike.

d. Mandibular rami enlarged and swollen, longer than gonys.

Ramphocelus passerinii

dd. Mandibular rami normal, shorter than gonys.

Phlogothraupis sanguinolenta

cc. Loral and frontal feathers normal.

d. Maxilla strongly hooked at tip, a conspicuous tooth on tomium.

Lanio aurantius

dd. Maxilla not strongly hooked at tip, no conspicuous tooth on tomium.

e. Bill larger, exposed culmen two-thirds or more as long as tarsus.

f. Back green.

Eucometis spodocephala

ff. Back red or brown

THRAUPIDAE (Cont'd.)

g. General color red

h. Scarlet crown patch margined laterally with black.

Habia rubica ♂

hh. Scarlet crown patch not margined with black.

Habia salvini ♂

gg. General color olive or brown

h. Center of crown tawny.

Habia rubica ♀

hh. Crown concolor with rest of pileum.

Habia salvini ♀

ee. Bill much smaller, exposed culmen much less than two-thirds as long as tarsus.

Chlorospingus olivaceous

ICTERIDAE (Except Icterus)

- a. Prominent yellow markings in tail.
- b. Size large, back chestnut, cheeks and sides of throat naked.

Gymnostinops montezuma

- bb. Size medium, back black, cheeks feathered.

Zarhynchus wagleri

- aa. Tail black, without yellow.

- b. Larger, wing 154-202, neck ruffed, plumage with violet sheen.

Psomocolax orizivorus

- bb. Smaller, wing 112-132, no ruff, plumage with greenish sheen.

Dives dives

ICTERIDAE

Icterus

- a. Tail unicolorous, black, except at concealed base.
- b. Head, all round, uniform black or chestnut.
- c. Back and scapulars uniform black.
- d. Underparts of body and rump neither chestnut nor rufous-tawny.
- e. Wings with white markings. maculi-alatus ♂ ♀
- ee. Wings without white markings.
- f. Breast yellow or orange wagleri ♂ ♀
- ff. Breast black prothemelas ♂ ♀
- dd. Underparts of body and rump chestnut. spurius ♂
- cc. Back and scapulars yellowish olive-green or olive yellow. prothemelas imm.
- bb. Head orange, yellow, or olive green, with black throat and capistrum.
- c. Back and scapulars uniform black
- d. Breast spotted with black (at least laterally) pectoralis ♂ ♀
- dd. Breast not spotted gularis ♂ ♀
- cc. Back and scapulars not uniform black.
- d. Forehead and at least anterior part of auricular region black; wing-coverts without any white.
- e. Larger, wing 86-112; general color including back orange-yellow. Chrysater
- ee. Smaller, wing less than 86; general color lemon-yellow, or pale olive-yellow below, more olivaceous on back. prothemelas imm.

Icterus (Cont'd.)

- d. Forehead and whole of auricular region orange, yellow, or olive-green; wing-coverts marked with white.

sclateri ♂

- aa. Tail distinctly bicolored, black and yellow or black and orange.

- b. Pileum and hindneck yellow.

mesomelas ♂ ♀

- bb. Pileum, except sometimes forehead and hindneck black.

- c. Head entirely black; outer webs of greater wing-coverts black basally.

galbula ♂

- cc. Head partly yellow or orange; outer webs of greater wing-coverts wholly white.

bullockii ♂

- aaa. Tail neither entirely black nor distinctly bicolored, mostly plain olivaceous or dusky.

- b. Throat black or dusky

- c. Larger, wing 101.6 or more.

gularis imm.

- cc. Wing less than 101.6

- d. Back without any black

spurius ♂ imm.

- dd. Back with more or less black.

- e. Tail more than 78.7.

wagleri imm.

- ee. Tail not more than 78.7.

- f. Pileum without streaks or spots of black.

bullockii ♀, ♂ imm.

- ff. Pileum streaked or spotted with black.

galbula ♀, ♂ imm.

Icterus (Cont'd.)

bb. Throat not black or dusky.

c. wings without white markings.

d. Pileum and back dull saffron yellowish;
bill stouter.

giraudii yg.

dd. Pileum and back dull brownish olive;
underparts dull naples yellow, bill more
curved.

wagleri yg.

cc. Wings with distinct white markings.

d. Tail more than 81.3

sclateri yg.

dd. Tail not more than 81.3

e. Auricular region dull orange, an orange
superciliary.

bullockii ♀, ♂ imm.

ee. Auricular region dull olive, no orange
superciliary.

galbula ♀, ♂ imm.

CORVIDAE

a. Head with long crest of a few feathers.

Calocitta formosa

aa. Head not prominently crested.

b. Plumage mainly brown

Psilorhinus mexicanus

bb. Plumage mainly blue.

c. Back and crown blue.

d. Larger, wing 165-168 mm., entirely blue except for black lores.

dd. Smaller, wing 109-119, sides of head black, a narrow line of white along sides of crown.

Cyanolyca pumila

cc. Upper back, chest and much of head black.

d. A crown patch of light blue

Cyanolyca mitrata

dd. Crown black

Cissilopha melanocyanea

CRACIDAE

a. Larger, wing 380 mm., brownish underneath with indefinite streaks of white.
Penelope purpurascens.

aa. Smaller, wing 235 mm., male black, female barred above with brown.
Penelopina nigra.

Data from Journal of J. H. Kempton.

October - December, 1935.

Guatemala City of Panajachel, elevated country with forests of pine.

Lake Atitlan surrounded by mountains.

Panajachel at 6000 feet.

Between Quetzaltenango and Huehuetenango much of country 9000 feet elevation, uninhabited with forests of small pines and oaks.

Rudolph Apel operates an excellent hotel in Huehuetenango. He is well informed on country. Kempton secured a good native assistant from him.